

**Notice of Allowability**

Application No.

10/058,638

Examiner

Gary C. Vieaux

Applicant(s)

OLDING ET AL.

Art Unit

2622

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment - After Non-Final Rejection dated 2/14/2007.
2. ☒ The allowed claim(s) is/are 1-4, 15-16, and 32 (now formally renumbered as claims 1-7).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application  |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>20070326</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment  |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|  | 9. <input type="checkbox"/> Other _____  |

## EXAMINER'S AMENDMENT AND STATEMENT OF REASONS FOR ALLOWANCE

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes  
5 and/or additions be unacceptable to applicant, an amendment may be filed as provided  
by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be  
submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview  
with Carmen Cook, Atty. Reg. No. 42,433, on March 29, 2007.

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### **\*\*\*Begin Examiner's Amendment\*\*\***

#### Amendment to the Specification

The title is hereby amended to read: "IMAGE SENSOR AND METHOD FOR  
15 IMPLEMENTING OPTICAL SUMMING USING SELECTIVELY TRANSMISSIVE  
FILTERS FOR INTERLACED VIDEO IMAGE SENSOR", which represents a title that is  
more clearly indicative of the invention to which the claims are currently directed.

#### Amendment to the Specification

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Claim 4 is hereby amended to read:

4. (Original) The image sensor of claim 1, wherein each of said pixel elements of said  
image sensor generates analog signals representative of said image as pixel data, and

Art Unit: 2622

said image sensor further comprises an analog-to-digital converter for digitizing said analog signals.

**\*\*\*End Examiner's Amendment\*\*\***

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## **EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE**

### ***Amendment***

The Amendment, filed February 14, 2007, has been received and made of  
10 record. In response to the most recent Office Action dated February 14, 2007, claims 1  
and 15 have been amended and claims 8-14, 20-24, and 33-34 have been cancelled.

### ***Response to Amendment***

In response to Applicant's amended drawings, the Examiner finds the amended  
15 figures 10 to be properly designated as Prior Art, because only that which is old is  
illustrated, and therefore, this objection to the drawings is hereby withdrawn.

In response to Applicant's amended claims 1 and 15, the Examiner finds the  
amended claims create proper antecedent basis by correcting each instance to read  
"selectively transmissive filter" or "selectively transmissive filters", respectively, and  
20 therefore, this objection to the claims is hereby withdrawn.

***Response to Arguments***

Applicant's arguments, in light of the most current amendments, have been fully considered and are found to be persuasive.

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***Allowable Subject Matter***

**Claims 1-4, 15-16, and 32** are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 1-4, 15-16, and 32, the prior art is not found to teach or fairly  
10 suggest, an image sensor comprising a two-dimensional array of pixel elements, said  
array of pixel elements outputting pixel data representing an image of a scene, and a  
two-dimensional array of selectively transmissive filters superimposed on said two-  
dimensional array of pixel elements, whereby each pixel element in said array of pixel  
elements is disposed to capture a first and a second color spectra of visible light,  
15 wherein said two-dimensional array of selectively transmissive filters comprises a two-  
dimensional array of filter cells, each filter cell superimposed and in registration with  
each of said pixel elements, each of said filter cells comprising a selectively  
transmissive filter of a first type and a selectively transmissive filter of a second type  
formed as four quadrants in an active area of said filter cell, and in each filter cell, said  
20 selectively transmissive filter of said first type occupies a first quadrant and a second  
quadrant diagonal from said first quadrant.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

Art Unit: 2622

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Contact**

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary C. Vieaux whose telephone number is 571-272-7318. The examiner can normally be reached on Monday - Friday, 8:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen T. Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
NGOC-YEN VU  
SUPERVISORY PATENT EXAMINER

Gary C. Vieaux  
Examiner  
Art Unit 2622